Water Quality Report

For Period Ending December 2014

Anniston Water Works & Sewer Board

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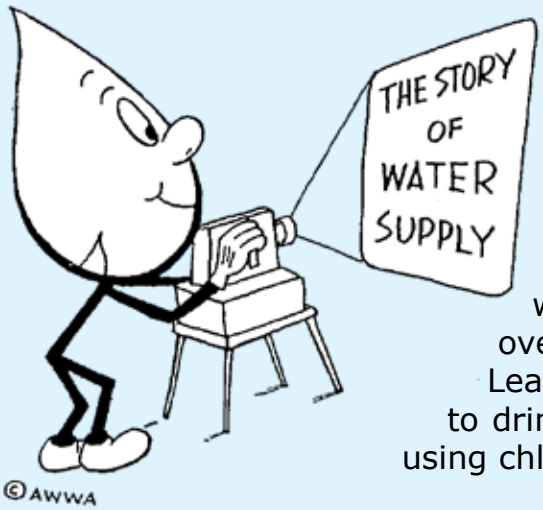
The History of Water Chlorination

Prior to 1908 no municipal water system chemically disinfected water. Waterborne diseases such as typhoid fever and cholera claimed the lives of many Americans. The use of chemicals as a disinfection method was considered illogical and unsafe. John Leal, a physician from New York went against the common beliefs of his time and revolutionized the treatment of water.

John L. Leal graduated from Princeton College in 1880. He went on to graduate from Columbia College of Physicians and Surgeons in 1883. He opened a medical practice in Paterson, New Jersey. In 1899 he became the sanitary adviser to private water companies such as East Jersey Water Company and Jersey City Water Supply Company.

Jersey City had suffered with a contaminated water supply for decades. Tens of thousands of people died from typhoid fever and other waterborne diseases. In 1899 the city contracted with Jersey City Water Supply Company to build a dam on the Rockaway River and create a new water supply. The dam created Boonton Reservoir which had a storage capacity of seven billion gallons. Leal's job was to remove sources of contamination in the Rockaway River above the reservoir. Water from the reservoir was served to the city on May 23, 1904.



Jersey City claimed that the water was not "pure and wholesome" and filed suit against the Jersey City Water Supply Company. Leal and the company attorney argued to install "other devices" that would do a better job. The judge gave them a little over three months to prove their idea. In May of 1908 Leal decided it was time to add a chemical disinfectant to drinking water. Leal was familiar with some success using chlorine in Europe.

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Este informe contiene la información importante! Si usted no entiende este informe, pida que alguien lo traduzca usted.

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Chemicals added to water as a disinfectant had never been attempted in the United States. The public feared chemicals in their food and water. Leal was convinced that adding chlorine to the water was the best way to kill disease causing bacteria. Leal hired George Warren Fuller to design a chlorine feed system to treat 40 million gallons per day. Ninety-nine days later the system was built and operational. The system worked from day one and continued to work without any problems.

Thanks to the courage of people like John Leal and George Fuller many lives were saved. The Chlorination and Fluoridation of water are considered two of the greatest public health achievements of the 20th Century in the United States. The Anniston Water Works is proud to serve our customers with safe, high quality drinking water.

Ed Turner, General Manager

OUR MISSION IS:

- **SERVICE** – by providing high quality drinking water to our customers on demand while maintaining our plants and equipment to facilitate economic growth and development.
- **PROTECTION OF THE ENVIRONMENT AND PUBLIC HEALTH** – through responsible wastewater treatment and source water protection
- **CONTINUOUS IMPROVEMENT** – of our processes and personnel to achieve the highest standards of customer satisfaction and to meet or exceed all water and wastewater quality standards.

Important Information to Know about Water

- Substances that may be present in source water include: Microbial contaminates, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminates, such as salts and metals, which can be naturally occurring, or as result from urban run-off, industrial or domestic wastewater discharges, oil or gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water run-off, and residential uses, organic chemical contaminates, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm run-off, and septic tanks.
- Radioactive contaminates, which can be naturally occurring or be the result of oil and gas production and mining activities.
- In order to ensure that tap water is safe, EPA prescribes regulations which limit the amount of certain contaminates in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminates in bottled water, which must provide the same protection for public health.
- Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immuno-compromised such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or other immune system disorders, some elderly, and infants can be particularly at risk from infections. Those at risk should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791). This information is being provided in addition to other information or notices that may be required by law.

List of Non-Detect Substances (Anniston Water Works tested for the following substances in 2014 but none were detected.)

1,1 - Dichloropropene	2,2 - Dichloropropane	Hexachlorobutadiene	P-Isopropyltoluene	1,1-Dichloroethylene	Ethylbenzene	Beryllium	Selenium
1,1,2,2-Tetrachloroethane	Bromobenzene	Isopropylbenzene	Sec - Butylbenzene	1,2,4-Trichlorobenzene	p-Dichlorobenzene	Cadimium	Thallium
1,1-Dichloroethane	Bromochloromethane	M-Dichlorobenzene	Tert - Butylbenzene	1,2-Dichloroethane	Styrene	Chromium	Color
1,2,3 - Trichlorobenzene	Bromoform	MTBE	Trichlorfluoromethane	1,2-Dichloropropane	Tetrachloroethylene	Cyanide	Foaming Agents
1,2,3 - Trichloropropane	Bromomethane	N - Butylbenzene	1,1,1,2-Tetrachloroethane	Benzene	Toluene	Lead	Manganese
1,2,4 - Trimethylbenzene	Chloroethane	Naphthalene	Trans 1,3 Dichloropropene	Carbon Tetrachloride	trans-1,2-Dichloroethylene	Mercury	Silver
1,3 - Dichloropropane	Chloromethane	N-Propylbenzene	O-Dichlorobenzene	Chlorobenzene	Vinyl Chloride	Nickel	Zinc
1,3 - Dichloropropene	Dibromomethane	O-Chlorotoluene	1,1,1-Trichloroethane	cis-1,2-Dichloroethylene	Xylenes	Nitrate	Dibromoacetic Acid
1,3,5 - Trimethylbenzene	Dichlorodifluoromethane	P-Chlorotoluene	1,1,2-Trichloroethane	Dichloromethane	Antimony	Nitrite	Monobromoacetic Acid

Federal Unregulated Monitoring

1,2,3-Trichloropropane	1,1-Dichloroethane	Bromochloromethane	Molybdenum	Chromium	Perfluorooctanesulfonic Acid	Perfluorohexanesulfonic Acid	
1,3-Butadiene	Bromomethane	1,4-Dioxane	Cobalt	Chromium-6	Perfluorooctanoic Acid	Perfluoroheptanoic Acid	
Chloromethane	Chlorodifluoromethane	Vanadium	Strontium	Chlorate	Perfluorononanoic Acid	Perfluorobutanesulfonic Acid	

DETECTED SUBSTANCES TABLE FOR PERIOD JANUARY -- DECEMBER 2014

Water Source				Coldwater Spring	Hillabee Reservoir		
Primary Inorganic Substances	Units	MCL	MCLG	Highest Level Last 12 Months		Violation (Yes/No)	Source of Substance
Arsenic	ppb	50	--	0.55	Less than 0.5	No	Runoff from orchards; natural deposits; runoff from glass and electronics production wastes
Barium	ppb	2000	2000	23.7	3.3	No	Discharge of drilling wastes; discharge from metals refineries; erosion of natural deposits
Fluoride	ppm	4	4	0.760	0.781	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Sulfate	ppm	500	--	2.22	20.6	No	Erosion of natural deposits
Secondary Inorganic Substances	Units	MCL	MCLG	Highest Level Last 12 Months		Violation (Yes/No)	Source of Substance
Alkalinity, Total	ppm	--	--	97.7	10.5	No	Erosion of natural deposits
Aluminum	ppb	200	--	11.60	170.0	No	Water additive for removing organics; Erosion of natural deposits
Calcium	ppm	--	--	22.1	11.6	No	Erosion of natural deposits
Carbon Dioxide	ppm	--	--	Less than 1.00	Less than 1.00	No	Erosion of natural deposits
Chloride	ppm	[250]	--	2.89	5.36	No	An inorganic constituent in water affecting taste
Conductance	umhos/cm	--	--	195	96.7	No	Erosion of natural deposits
Copper	ppb	1000	1000	20.0	4.42	No	Corrosion of household plumbing systems; Erosion of natural deposits
Hardness, Total (As $CaCO_3$)	ppm	--	--	102	33.4	No	Erosion of natural deposits
Iron	ppb	300	--	55.6	Less than 10.0	No	Erosion of natural deposits
Magnesium	ppm	--	--	11.3	1.09	No	Erosion of natural deposits
pH	ppm	--	--	7.7	7.1	No	An indicator of acidity or alkalinity levels of water
Sodium	ppb	--	--	1.45	1.60	No	Erosion of natural deposits
Total Dissolved Solids	ppm	[500]	--	145	76	No	Erosion of natural deposits
Disinfection By-Products (at the Plants)	Units	MCL	MCLG	Annual Average		Violation (Yes/No)	Source of Substance
Total Trihalomethanes (TTHM's)	ppb	N/A	0	Less than 0.5	31	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5's)	ppb	N/A	0	Sampling not required in 2014	34.8	No	By-product of drinking water chlorination
Disinfection By-Products (in Distribution System)	Units	MCL	MCLG	Highest Level Last 12 Months		Violation (Yes/No)	Source of Substance
Total Trihalomethanes (TTHM's)	ppb	80	0	2.0	3.08	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5's)	ppb	60	0	Less than 6.00	Less than 6.00	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHM's) are the sum of the concentrations of bromoform, bromodichloromethane, chlorodibromomethane, and chloroform MCL equal to or less than 80 ppb. Haloacetic Acids (HAA5's) are the sum of the concentrations of dibromoacetic acid, dichloroacetic acid, monobromacetic acid, and trichloroacetic acid MCL equal to or less than 60 ppb.							
Regulated Volatile Chemicals	Units	MCL	MCLG	Highest Level Last 12 Months		Violation (Yes/No)	Source of Substance
TCE (Trichloroethylene)	ppb	5	0	Less than 0.5	Less than 0.5	No	Discharge from metal degreasing sites and other factories
cis-1.2-Dichloroethylene	ppb	70	70	Less than 0.5	Less than 0.5	No	Discharge from industrial chemical factories
Non-Regulated Contaminants Table	Units	MCL	MCLG	Highest Level Last 12 Months		Violation (Yes/No	Source of Substance
Total Organic Carbon	ppb	Not Regulated		0.4	1.77	No	Natural sources
Radionuclides	Units	MCL	MCLG	Water Sources: Coldwater Spring and Hillabee Reservoir		Violation (Yes/No	Source of Substance
Gross Alpha	pCi/l	15	0	Sampling not required in 2014		No	Erosion of natural deposits
When gross alpha particle activity exceeds five pCi/l the remaining listed radionuclides would be analyzed.							
Turbidity	Units	MCL	MCLG	Highest Level Last 12 Months	Highest Level Last 12 Months	Violation (Yes/No	Source of Substance
Turbidity	NTU	2 consecutive >0.3		0.11	0.27	No	Erosion of natural deposits and soil runoff
100% of samples were below the turbidity limits. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.							
Lead & Copper Monitoring	Units	MCL	MCLG	Distribution System Violations		Violation (Yes/No	Source of Substance
Lead	ppb	15	0	0		No	Corrosion of household plumbing systems; erosion of natural deposits
Copper	ppb	1300	1300	0		No	Corrosion of household plumbing systems; erosion of natural deposits

Lead and copper are metals found in natural deposits as ores containing other elements. They are sometimes used in household plumbing materials or in water service lines used to bring water from the main to the home.

Lead can cause a variety of adverse health effects when people are exposed to it at levels above the action level for relatively short periods of time. These effects may include interference with red blood cell chemistry, delays in normal physical and mental development in babies and young children, slight deficits in the attention span, hearing, and learning abilities of children, and slight increases in the blood pressure of some adults. Lead has the potential to cause the following effects from a lifetime exposure at levels above the action level: stroke and kidney disease; cancer.

Copper is an essential nutrient, required by the body in very small amounts. However, EPA has found copper to potentially cause the following health effects when people are exposed to it at levels above the Action Level. Short periods of exposure can cause gastrointestinal disturbance including nausea and vomiting. Use of water that exceeds the Action Level over many years could cause liver or kidney damage. People with Wilsons disease may be more sensitive than others to the effect of copper contamination and should consult their health care provider.

State and local government agencies that can be contacted include: Anniston Water Works at 256-241-2000 can provide you with information about your facility's water supply; and the Calhoun County Health Department at 256-237-7523 can provide you with information about the health effects of lead and how you can have your child's blood tested. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's website at http://www.epa.gov/lead or contact your health care provider.

MICROBIOLOGICAL SUBSTANCES TABLE FOR PERIOD JANUARY -- DECEMBER 2014

Water Source			Coldwater Spring	Hillabee Reservoir		
Total Coliforms	MCL	MCLG	Highest Level Last 12 Months		Violation (Yes/No)	Source of Substance
Not more than 5% of the 70 monthly bacteriological samples taken during the month can test positive for total coliform. No sample can test positive for fecal coliform or E. Coli.	Less than 5%	0	1.40%		No	Human and animal fecal waste

Remember *GREASE* the musical?
Remember that **GREASE** you poured down the drain?
It's not a tune to remember but one you won't likely forget!
Dispose of household grease in a proper manner -
not in the sanitary sewer!

A Public Information Message from The Water Works and Sewer Board of the City of Anniston.
For more information contact the Engineering Department at 256-241-5007.

NLC Service Line Warranty Program

The Water Works and Sewer Board of the City of Anniston is notifying residents of a program provided through the National League of Cities (NLC) Service Line Warranty Program administered by Service Line Warranties of America (SLWA). This program offers a warranty to homeowners that covers repairs or replacements on the outside sewer line that runs from the home to the point of utility responsibility. Property owners are accountable for these repairs, not the utility.

For more information on this program or to enroll, please visit SLWA's web site at www.SLWofA.com

Service Line Warranties

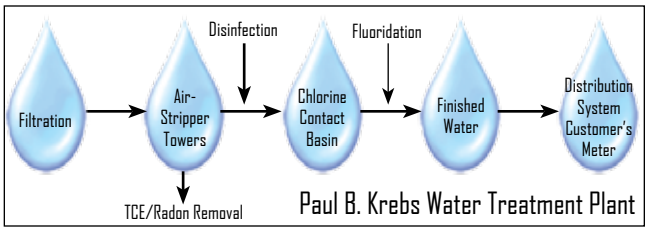
Definitions/Abbreviations Used in this Report		
AL	Action Level	The concentration of a contaminant which triggers treatment or other requirements which a water system must follow.
MCL	Maximum Contaminant Level	The highest level of a contaminant that is allowed in drinking water.
MCLG	Maximum Contaminant Level Goal	The level of a contaminant in drinking water below which there is no known or expected health risk.
MRDL	Maximum Residual Disinfectant Level	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	Maximum Residual Disinfectant Level Goal	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
NS	None Set	No MCL has been set.
NTU	Nephelometric Turbidity Units	A measure of turbidity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.
pCi/L	Picocuries Per Liter	A measure of radioactivity.
PPM	Parts per Million or milligrams per liter (mg/L)	**What is a PPM?** Compares to 8 hours and 45 seconds out of a millennium (1000 years).
PPB	Parts per Billion or micrograms per liter (mg/L)	**What is a PPB?** Compares to 31 seconds out of a millennium (1000 years).
SU	Standard Unit	A measure of pH or acidity.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.

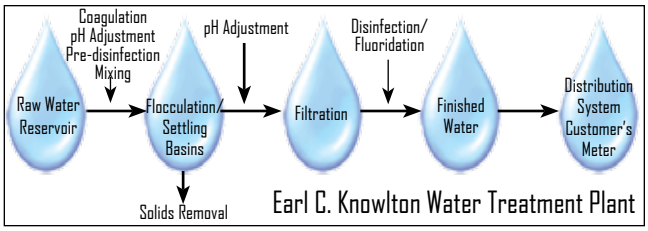
The Alabama Department of Environmental Management (ADEM), with the approval of the United States Environmental Protection Agency (EPA), issued a statewide waiver on monitoring for asbestos and dioxin. Accordingly, Anniston Water Works was not required to monitor for these during the reporting period. Due to the exceptional quality of raw water at Coldwater Spring, the treatment technique at the Paul B. Krebs Water Treatment Plant employs a variance of the filtration rule which was granted by ADEM.

This report is being furnished to you as required by the Safe Drinking Water Act. We are proud to report that your drinking water is safe and meets all requirements of state and federal regulations.

The United States Environmental Protection Agency maintains a Safe Drinking Water Hotline, 800-426-4791, where you can obtain more information about drinking water.

Water Treatment Process





Drinking water supplied to customers of the Anniston System comes from two sources. Our primary water source is the Coldwater Spring located 7 miles west of Anniston on Tom Burkhart Drive. The Alabama Department of Environmental Management classifies Coldwater Spring as groundwater under the influence of surface water. Water from the spring is treated at the Paul B. Krebs Water Treatment Plant. The statement "under the influence," refers to run off into the uncovered spring pool which is over one acre in size.

Our secondary source of water is the Hillabee Creek Reservoir located 7 miles southeast of Anniston on Jennifer Lane. Hillabee Reservoir is classified as a surface water source. Water from the reservoir is treated at the Earl C. Knowlton Water Treatment Plant located just to the north of the reservoir.

Anniston Water Works has completed a Source Water Assessment for Coldwater Spring and for Hillabee Reservoir. Our assessment has found there is 'Low Susceptibility' to our source waters from elements likely to cause contamination. Our assessment will be updated during 2015. Anniston Water Works also owns the Sam H. Hamner Reservoir located 7 miles east of Anniston near the White Plains Community. No water is currently removed from Hamner Reservoir for use in the system.